

## ABSTRACT

In a full duplex PCM modem system having an analog and digital modem, a method and apparatus is provided for on-the-fly reconfiguring of analog or digital modem transmitter parameters without switching back to a retrain or startup mode. In one embodiment, the transmitter parameters for the analog modem are modified to take into account channel impairments, in which modified precompensation parameters are sent from the digital modem to the analog modem without switching out of the data mode. In another embodiment, transmit power levels sensed at the analog modem which are non-optimal are adjusted by new parameters sent from the digital modem without having to switch back to the startup mode. In a further embodiment, transmitter parameters in the digital modem are reconfigured to provide more an increased downstream data rate from the digital modem upon sensing improvement in the quality of the downstream channel without switching to the startup mode.